CONTENTS OF VOLUME 37

NUMBER 1

Y. Zhou and K. W. Neale	1	Predictions of forming limit diagrams using a rate-sensitive crystal plasticity model
D. A. Steinman, W. L. Cleghorn and B. Tabarrok	21	Exact solution for the free vibration of axially-loaded pretwisted rods
N. K. Gupta and A. Khullar	31	Lateral crushing of square and rectangular tubes by non-orthogonally placed narrow width indenters
J. B. Choi and R. S. Lakes	51	Analysis of elastic modulus of conventional foams and of re-entrant foam materials with a negative Poisson's ratio
C. Rajalingham, R. B. Bhat and G. D. Xistris	61	A note on elliptical plate vibration modes as a bifurcation from circular plate modes
P. Thanapandi and R. Prasad	77	Centrifugal pump transient characteristics and analysis using the method of characteristics
J.-D. Kim and V. R. Marinov	91	Material characterization in the chip-tool deformation zone: an application of boundary-layer theory

NUMBER 2

R. Kitching and D. R. Hose	97	Experimental and theoretical stress analysis of multi-mitred lined glass reinforced plastic pipe bends
M.-Y. Chang and L. Librescu	121	Postbuckling of shear-deformable flat and curved panels under combined loading conditions
J.-S. Huang, R.-F. Fung and C.-H. Lin	145	Dynamic stability of a moving string undergoing three-dimensional vibration
He Ling-Hui	161	Non-linear theory of laminated shells accounting for continuity conditions of displacements and tractions at layer interfaces
S. Domanti and D. L. S. McElwain	175	Two-dimensional plane strain rolling: an asymptotic approach to the estimation of inhomogeneous effects
J.-H. Chen and A.-C. Lee	197	Estimation of linearized dynamic characteristics of bearings using synchronous response

NUMBER 3

Wei Qin Shen	221	Interaction yield hypersurfaces for the plastic behaviour of beams—I. Combining bending, tension and shear

Wei Qin Shen	239	Interaction yield hypersurfaces for the plastic behaviour of beams—II. Combining bending, tension, shear and torsion
A. C. Nogueira and J. L. Tassoulas	249	Finite element analysis of buckle propagation in pipelines under tension
C. E. Truman, A. Sackfield and D. A. Hills	261	Contact mechanics of wedge and cone indenters
C. W. Lim and K. M. Liew	277	A higher order theory for vibration of shear deformable cylindrical shallow shells
Y.-M. Hwang, H.-H. Hsu and H.-J. Lee	297	Analysis of sandwich sheet rolling by stream function method
C. Huang and B. Kröplin	317	Optimum design of composite laminated plates via a multi-objective function
F. Pourboghrat and E. Chu	327	Springback in plane strain stretch/draw sheet forming

NUMBER 4

S.-Y. Sun and T.-R. Ren	343	New method of thermodynamic computation for a reciprocating compressor: computer simulation of working process
M. Moussouros and M. H. Fatt	355	Effect of shear on plastic denting of cylinders
D. W. A. Rees	373	Plastic flow in the elliptical bulge test
Y. S. Chiou, E. S. Chung and S. Y. Liang	391	Analysis of tool wear effect on chatter stability in turning
Z. Tan, B. Persson and C. Magnusson	405	Plastic bending of anisotropic sheet metals
C.-L. Liao and B.-W. Huang	423	Parametric instability of a spinning pretwisted beam under periodic axial force
C. T. Sun and J. M. Bai	441	Vibration of multi-degree-of-freedom systems with non-proportional viscous damping
Announcements	457	

NUMBER 5

K. Skalski, A. Morawski and W. Przybylski	461	Analysis of contact elastic–plastic strains during the process of burnishing
F. U. Enikeev and A. A. Kruglov	473	An analysis of the superplastic forming of a thin circular diaphragm

Y. I. Nyashin and O. R. Ilialov 485 Optimization problem for obtaining a prescribed residual stress distribution: formulation and solution

A. C. Wijeyewickrema, L. M. Keer and K. F. Ehmann 495 Drill wandering motion: experiment and analysis

A. R. Shaik, S. Raman, F. Civan and P. H. Cohen 511 A new forward temperature estimator for remote thermocouple sensing in machining

M. Dalaei and A. D. Kerr 527 Analysis of clamped rectangular orthotropic plates subjected to a uniform lateral load

O. G. McGee, C. S. Huang and A. W. Leissa 537 Comprehensive exact solutions for free vibrations of thick annular sectorial plates with simply supported radial edges

Announcements 567

NUMBER 6

J.-D. Kim, E.-S. Lee and C.-Y. Lee 569 Crack generation and the effect of in-process electro-discharge dressing in grinding single crystal MgO

W. W. Zhang 585 Root locus approach to a distributed parameter vibrating system with both bending and torsion motions

V. R. Sonti and O. P. Agrawal 601 Design sensitivity analysis of dynamic systems using Hamilton's law of varying action

A. P. Gupta and N. Goyal 615 Effect of transverse shear and rotatory inertia on the forced axisymmetric response of linearly tapered circular plates

M. Janas, S. Pycko and J. Zwoliński 629 A min–max procedure for the shakedown analysis of skeletal structures

D. J. Dawe and S. Wang 645 Spline finite strip analysis of the buckling and vibration of rectangular composite laminated plates

NUMBER 7

P. D. Nicolaou, H. R. Piehler and S. Saigal 669 Process parameter selection for the consolidation of continuous fiber reinforced composites using finite element simulations

Y. Yamada and M. Sasaki 691 Elastic–plastic large deformation analysis program and lamina compression test

J. J. Park 709 Constitutive relations to predict plastic deformations of porous metals in compaction

A. Kandil, A. A. El-Kady and A. El-Kafrawy	721	Transient thermal stress analysis of thick-walled cylinders
J. W. Yoon, I. S. Song, D. Y. Yang, K. Chung and F. Barlat	733	Finite element method for sheet forming based on an anisotropic strain-rate potential and the convected coordinate system
G. Suire and G. Cederbaum	753	Periodic and chaotic behavior of viscoelastic nonlinear (elastica) bars under harmonic excitations
G. G. Adams	773	Critical speeds and the response of a tensioned beam on an elastic foundation to repetitive moving loads
Pham Duc Chinh	783	Adaptation of spherical and cylindrical vessels to variable internal pressure and temperature

NUMBER 8

R. E. Smelser and **R. E. Johnson**	793	An asymptotic model of slab casting
L. San Andres, D. Childs and **Z. Yang**	815	Turbulent-flow hydrostatic bearings: analysis and experimental results
V. Birman and **M. G. Magid**	831	Creep buckling and rupture of columns with arbitrary symmetric cross section
J. Jiang and **M. D. Olson**	843	Rigid-plastic analysis of underwater blast loaded stiffened plates
C.-F. Liu and **G.-T. Chen**	861	A simple finite element analysis of axisymmetric vibration of annular and circular plates
N. Tutuncu	873	Effect of anisotropy on stresses in rotating discs
J. Xu and **R. M. McMeeking**	883	Finite element simulation of powder consolidation in the formation of fiber reinforced composite materials
W. Johnson	899	Swift's Gulliver, no friend to science

NUMBER 9

Wu Zhang and Yan Wang	919	The photoelastic behaviour of optically heterogeneous fibre composites—I. The equivalence of birefringence in optically heterogeneous unidirectional fibre composites
Wu Zhang and Yan Wang	933	The photoelastic behaviour of optically heterogeneous fibre composites—II. The principal direction of the equivalent birefringence for optically heterogeneous unidirectional fibre composites

T. C. Maltby and C. R. Calladine	943	An investigation into upheaval buckling of buried pipelines—I. Experimental apparatus and some observations
T. C. Maltby and C. R. Calladine	965	An investigation into upheaval buckling of buried pipelines—II. Theory and analysis of experimental observations
R.-F. Fung and C.-C. Liao	985	Application of variable structure control in the nonlinear string system
R. Mahmudi	995	Yield loci of anisotropic aluminium sheets
M. G. Boyarshinov and P. V. Trusov	1011	The objective function construction for the multi-criteria problems of cyclic bending
M. K. Ghosh and D. E. Brewe	1021	Temperature distribution and thermal distortion due to frictional heating in a dry shaft–bush tribosystem using the finite element method
T. W. Liao, G. Sathyanarayanan, L. J. Plebani, M. U. Thomas and K. Li	1035	Characterization of grinding-induced cracks in ceramics

NUMBER 10

R. I. Lewis	1051	Developments of actuator disc theory for compressible flow through turbo-machines
C. T. Morley	1067	Local couple transfer to a torsionless grillage
C. M. Leech and B. Tabarrok	1079	The cable geometry for a towed submersible
Y. Xiang, C. M. Wang and S. Kitipornchai	1089	Buckling of skew Mindlin plates subjected to in-plane shear loadings
B. Singh and V. Saxena	1103	Transverse vibration of a quarter of an elliptic plate with variable thickness

NUMBER 11

J. Lee and Dae-Hwan Kim	1133	Experimental modal analysis and vibration monitoring of cutting tool support structure
Y. Zhao and D. E. Winterbone	1147	The finite volume FLIC method and its stability analysis
M. J. Silva, W. C. Hayes and L. J. Gibson	1161	The effects of non-periodic microstructure on the elastic properties of two-dimensional cellular solids
N. Ogbonna, N. A. Fleck and A. C. F. Cocks	1179	Transient creep analysis of ball indentation

R. J. Hung and H. L. Pan 1203 Combined gravity gradient and jitter accelerations acting on liquid–vapor interface oscillations in reduced gravity

NUMBER 12

N. R. Chitkara and M. A. Bhutta 1223 Computer simulation to predict stresses and die loads during metal flow in incremental heading of shaped heads from cylindrical rods and some experiments

N. R. Chitkara and M. A. Bhutta 1247 Near net shape spline forging: an experimental investigation and a simple upper bound analysis

F. Sassani and M. Xiao 1269 Modelling hot flat-rolling of components having curved profiles—Part I. Deformation analysis

F. Sassani and M. Xiao 1283 Modelling hot flat-rolling of components having curved profiles—Part II. Characterization of heat transfer and flow stress

Y. Tomita and T. Iwamoto 1295 Constitutive modeling of TRIP steel and its application to the improvement of mechanical properties

Hui-Shen Shen 1307 Postbuckling analysis of composite laminated plates on two-parameter elastic foundations

i Volume contents and author index